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Sequence Listing was accepted with existing errors.

See attached Validation Report.

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Reviewer: Anne Corrigan

Timestamp: Mon Jun 25 16:59:13 EDT 2007

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Validated By CRFValidator v 1.0.2

Application No: 10541947 Version No: 2.0

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Finished: 2007-06-21 10:13:27.311
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Total Warnings: 0
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No. of SeqIDs Defined: 9
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<110> North Carolina State University
Petitte, James
Pardue, Samuel

<120> DEPLETION OF ENDOGENOUS PRIMORDIAL GERM CELLS IN AVIAN SPECIES

<130> 297/204 PCT

<140> 10541947
<141> 2005-12-12

<150> US 60/440,424
<151> 2003-01-16

<160> 9

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<222> (1)..(1989)

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tcc cag ggg cgt tct gag gag cag gcg tgg atg gct aac tct ggc aga       96
Ser Gln Gly Arg Ser Glu Glu Gln Ala Trp Met Ala Asn Ser Gly Arg
            20                  25                  30

cca aac agc cca tcc ctc cgc ttc tcc agc aga cca agc agc ccc ttg      144
Pro Asn Ser Pro Ser Leu Arg Phe Ser Ser Arg Pro Ser Ser Pro Leu
        35                  40                  45

tct ggc ttc cca ggc aga cca aac agc ccc ttc ttt ggc ttt agt cag      192
Ser Gly Phe Pro Gly Arg Pro Asn Ser Pro Phe Phe Gly Phe Ser Gln
    50                  55                  60

aat aaa ggc tca ctt ggt gct aat gaa gga ctt aac aga agt ctg cct      240
Asn Lys Gly Ser Leu Gly Ala Asn Glu Gly Leu Asn Arg Ser Leu Pro
65                  70                  75                  80

gtg cag cat gac att gga gga tat tct ggg agc aga gag tct gtt gta      288
Val Gln His Asp Ile Gly Gly Tyr Ser Gly Ser Arg Glu Ser Val Val
                85                  90                  95

cgt caa aac aga gaa gat caa cca gtg act aga ttt ggt aga ggg agg      336
Arg Gln Asn Arg Glu Asp Gln Pro Val Thr Arg Phe Gly Arg Gly Arg
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            100                 105                 110

agt tct gga agc aga gat ttt caa gag agg aac tct gca aat gat cct      384
Ser Ser Gly Ser Arg Asp Phe Gln Glu Arg Asn Ser Ala Asn Asp Pro
        115                 120                 125

ggt atg caa gat caa ggt ttt aga aga gtt cct ggc atc ttt ggg caa      432
Gly Met Gln Asp Gln Gly Phe Arg Arg Val Pro Gly Ile Phe Gly Gln
    130                 135                 140

agc aag tgt ttt aac agt gag gaa aga aat agt cct ctg cgt ggc agc      480
Ser Lys Cys Phe Asn Ser Glu Glu Arg Asn Ser Pro Leu Arg Gly Ser
145                 150                 155                 160

cct ttt gcc cca gga gga aga gga gca gtt gga ggt cct gca gga gtt      528
Pro Phe Ala Pro Gly Gly Arg Gly Ala Val Gly Gly Pro Ala Gly Val
                165                 170                 175

ctc aaa gga cgc tct gaa gaa att gat tct gga aga ggt cca aag gtg      576
Leu Lys Gly Arg Ser Glu Glu Ile Asp Ser Gly Arg Gly Pro Lys Val
            180                 185                 190

act tat gtc ccc cct cct cca cct gaa gat gaa cag tcc atc ttt gca      624
Thr Tyr Val Pro Pro Pro Pro Pro Glu Asp Glu Gln Ser Ile Phe Ala
        195                 200                 205

tgt tat cag tca gga att aat ttt gac aag tat gat gaa tgt gct gtt      672
Cys Tyr Gln Ser Gly Ile Asn Phe Asp Lys Tyr Asp Glu Cys Ala Val
    210                 215                 220

gag atg tca gga ctt gac cct cca gca cca tta ctg gct ttt gaa gaa      720
Glu Met Ser Gly Leu Asp Pro Pro Ala Pro Leu Leu Ala Phe Glu Glu
225                 230                 235                 240

gct aac ttt gct cag act tta agg aag aat ata tct aaa act gga tat      768
Ala Asn Phe Ala Gln Thr Leu Arg Lys Asn Ile Ser Lys Thr Gly Tyr
                245                 250                 255

tca aaa ctt act cca gtg cag aag cac agc att cct gtt ata caa gca      816
Ser Lys Leu Thr Pro Val Gln Lys His Ser Ile Pro Val Ile Gln Ala
            260                 265                 270

ggg cgg gat tta atg tca tgt gcc cag aca gga tca gga aaa aca gca      864
Gly Arg Asp Leu Met Ser Cys Ala Gln Thr Gly Ser Gly Lys Thr Ala
        275                 280                 285

gct ttt ctt cta cca att gtg gac cgg atg atg aaa gat ggt gta act      912
Ala Phe Leu Leu Pro Ile Val Asp Arg Met Met Lys Asp Gly Val Thr
    290                 295                 300

gca agc ttc cca aag cag caa gac cca caa tgc att att gtt gca cca      960
Ala Ser Phe Pro Lys Gln Gln Asp Pro Gln Cys Ile Ile Val Ala Pro
305                 310                 315                 320

act aga gaa ctg ata aat cag atc ttc tta gaa gca agg aag ttt gtg     1008
Thr Arg Glu Leu Ile Asn Gln Ile Phe Leu Glu Ala Arg Lys Phe Val
                325                 330                 335
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tat ggg act tgt ata agg cct gtt gtg atc tat gga ggt aca cag aca     1056
Tyr Gly Thr Cys Ile Arg Pro Val Val Ile Tyr Gly Gly Thr Gln Thr
            340                 345                 350

ggt cat tca atc cgt caa ata atg caa ggc tgt aat ata tta tgt gcc     1104
Gly His Ser Ile Arg Gln Ile Met Gln Gly Cys Asn Ile Leu Cys Ala
        355                 360                 365

act cct gga agg ctt ctt gac att att gaa aaa ggg aag atc agt ttg     1152
Thr Pro Gly Arg Leu Leu Asp Ile Ile Glu Lys Gly Lys Ile Ser Leu
    370                 375                 380

gtg gag gtg aaa tat ttg gta cta gat gaa gca gac cgc atg ctc gat     1200
Val Glu Val Lys Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp
385                 390                 395                 400

atg ggt ttt gga tta gat atg aag aag ctg att tct tat cca gaa atg     1248
Met Gly Phe Gly Leu Asp Met Lys Lys Leu Ile Ser Tyr Pro Glu Met
                405                 410                 415

cca tct aaa gac aga cgt caa aca tta atg ttt agt gcc act ttt cct     1296
Pro Ser Lys Asp Arg Arg Gln Thr Leu Met Phe Ser Ala Thr Phe Pro
            420                 425                 430

gag gaa gtt caa agg ctg gct ggt gaa ttt ttg aaa acg gac tat ata     1344
Glu Glu Val Gln Arg Leu Ala Gly Glu Phe Leu Lys Thr Asp Tyr Ile
        435                 440                 445

ttt ctt gtt att gga aat acc tgt gga gcc tgc agt gat gtt cag caa     1392
Phe Leu Val Ile Gly Asn Thr Cys Gly Ala Cys Ser Asp Val Gln Gln
    450                 455                 460

aat att ctt cag gtt ccc cgg tta tcc aag agg gat aaa cta ata gaa     1440
Asn Ile Leu Gln Val Pro Arg Leu Ser Lys Arg Asp Lys Leu Ile Glu
465                 470                 475                 480

att cta caa agc aca ggt ggt gaa cga acc atg gtg ttt gtg gac aca     1488
Ile Leu Gln Ser Thr Gly Gly Glu Arg Thr Met Val Phe Val Asp Thr
                485                 490                 495

aag aaa aaa gca gat tac ctt gca gcc ttt ctt tgt caa gag aac cta     1536
Lys Lys Lys Ala Asp Tyr Leu Ala Ala Phe Leu Cys Gln Glu Asn Leu
            500                 505                 510

cca tcc acc agc att cat gga gat agg gaa cag aga gag aga gag ata     1584
Pro Ser Thr Ser Ile His Gly Asp Arg Glu Gln Arg Glu Arg Glu Ile
        515                 520                 525

gct ctt cgc gat ttc cgt tct gga aaa tgt caa att ctt gtg gca act     1632
Ala Leu Arg Asp Phe Arg Ser Gly Lys Cys Gln Ile Leu Val Ala Thr
    530                 535                 540

tcg gta gca tca aga ggc ctg gat att gaa aat gtt caa cat gtt att     1680
Ser Val Ala Ser Arg Gly Leu Asp Ile Glu Asn Val Gln His Val Ile
545                 550                 555                 560
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aat ttt gat ctc cct aac acc att gaa gat tat gta cat cga att gga     1728
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                565                 570                 575

cga act ggt cgt tgt gga aat act ggc aaa gca gtt tca ttc ttt gat     1776
Arg Thr Gly Arg Cys Gly Asn Thr Gly Lys Ala Val Ser Phe Phe Asp
            580                 585                 590

gat cag tca gat ggc cat ctt gta caa tca cta ctt aaa gtg ctt tcc     1824
Asp Gln Ser Asp Gly His Leu Val Gln Ser Leu Leu Lys Val Leu Ser
        595                 600                 605

aga acc cag cag gaa ttc cag ttt ggt gga aga atg gct gtc caa aga     1872
Arg Thr Gln Gln Glu Phe Gln Phe Gly Gly Arg Met Ala Val Gln Arg
    610                 615                 620

aca aat att gtt gct tca act tgg tgc cca aag gga tta atg cag gcc     1920
Thr Asn Ile Val Ala Ser Thr Trp Cys Pro Lys Gly Leu Met Gln Ala
625                 630                 635                 640

gtg gca gaa tgg aac cca aga gaa atg agg atg tca tat tct gaa aca     1968
Val Ala Glu Trp Asn Pro Arg Glu Met Arg Met Ser Tyr Ser Glu Thr
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Thr Phe Lys Ser Trp Glu
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<213> Gallus gallus

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Pro Asn Ser Pro Ser Leu Arg Phe Ser Ser Arg Pro Ser Ser Pro Leu
        35                  40                  45

Ser Gly Phe Pro Gly Arg Pro Asn Ser Pro Phe Phe Gly Phe Ser Gln
    50                  55                  60

Asn Lys Gly Ser Leu Gly Ala Asn Glu Gly Leu Asn Arg Ser Leu Pro
65                  70                  75                  80

Val Gln His Asp Ile Gly Gly Tyr Ser Gly Ser Arg Glu Ser Val Val
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                85                  90                  95

Arg Gln Asn Arg Glu Asp Gln Pro Val Thr Arg Phe Gly Arg Gly Arg
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Ser Ser Gly Ser Arg Asp Phe Gln Glu Arg Asn Ser Ala Asn Asp Pro
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Gly Met Gln Asp Gln Gly Phe Arg Arg Val Pro Gly Ile Phe Gly Gln
    130                 135                 140

Ser Lys Cys Phe Asn Ser Glu Glu Arg Asn Ser Pro Leu Arg Gly Ser
145                 150                 155                 160

Pro Phe Ala Pro Gly Gly Arg Gly Ala Val Gly Gly Pro Ala Gly Val
                165                 170                 175

Leu Lys Gly Arg Ser Glu Glu Ile Asp Ser Gly Arg Gly Pro Lys Val
            180                 185                 190

Thr Tyr Val Pro Pro Pro Pro Pro Glu Asp Glu Gln Ser Ile Phe Ala
        195                 200                 205

Cys Tyr Gln Ser Gly Ile Asn Phe Asp Lys Tyr Asp Glu Cys Ala Val
    210                 215                 220

Glu Met Ser Gly Leu Asp Pro Pro Ala Pro Leu Leu Ala Phe Glu Glu
225                 230                 235                 240

Ala Asn Phe Ala Gln Thr Leu Arg Lys Asn Ile Ser Lys Thr Gly Tyr
                245                 250                 255

Ser Lys Leu Thr Pro Val Gln Lys His Ser Ile Pro Val Ile Gln Ala
            260                 265                 270

Gly Arg Asp Leu Met Ser Cys Ala Gln Thr Gly Ser Gly Lys Thr Ala
        275                 280                 285

Ala Phe Leu Leu Pro Ile Val Asp Arg Met Met Lys Asp Gly Val Thr
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Ala Ser Phe Pro Lys Gln Gln Asp Pro Gln Cys Ile Ile Val Ala Pro
305                 310                 315                 320
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Thr Arg Glu Leu Ile Asn Gln Ile Phe Leu Glu Ala Arg Lys Phe Val
                325                 330                 335

Tyr Gly Thr Cys Ile Arg Pro Val Val Ile Tyr Gly Gly Thr Gln Thr
            340                 345                 350

Gly His Ser Ile Arg Gln Ile Met Gln Gly Cys Asn Ile Leu Cys Ala
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Thr Pro Gly Arg Leu Leu Asp Ile Ile Glu Lys Gly Lys Ile Ser Leu
    370                 375                 380

Val Glu Val Lys Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp
385                 390                 395                 400

Met Gly Phe Gly Leu Asp Met Lys Lys Leu Ile Ser Tyr Pro Glu Met
                405                 410                 415

Pro Ser Lys Asp Arg Arg Gln Thr Leu Met Phe Ser Ala Thr Phe Pro
            420                 425                 430

Glu Glu Val Gln Arg Leu Ala Gly Glu Phe Leu Lys Thr Asp Tyr Ile
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Phe Leu Val Ile Gly Asn Thr Cys Gly Ala Cys Ser Asp Val Gln Gln
    450                 455                 460

Asn Ile Leu Gln Val Pro Arg Leu Ser Lys Arg Asp Lys Leu Ile Glu
465                 470                 475                 480

Ile Leu Gln Ser Thr Gly Gly Glu Arg Thr Met Val Phe Val Asp Thr
                485                 490                 495

Lys Lys Lys Ala Asp Tyr Leu Ala Ala Phe Leu Cys Gln Glu Asn Leu
            500                 505                 510

Pro Ser Thr Ser Ile His Gly Asp Arg Glu Gln Arg Glu Arg Glu Ile
        515                 520                 525

Ala Leu Arg Asp Phe Arg Ser Gly Lys Cys Gln Ile Leu Val Ala Thr
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Ser Val Ala Ser Arg Gly Leu Asp Ile Glu Asn Val Gln His Val Ile
545                 550                 555                 560

Asn Phe Asp Leu Pro Asn Thr Ile Glu Asp Tyr Val His Arg Ile Gly
                565                 570                 575

Arg Thr Gly Arg Cys Gly Asn Thr Gly Lys Ala Val Ser Phe Phe Asp
            580                 585                 590

Asp Gln Ser Asp Gly His Leu Val Gln Ser Leu Leu Lys Val Leu Ser
        595                 600                 605

Arg Thr Gln Gln Glu Phe Gln Phe Gly Gly Arg Met Ala Val Gln Arg
    610                 615                 620

Thr Asn Ile Val Ala Ser Thr Trp Cys Pro Lys Gly Leu Met Gln Ala
625                 630                 635                 640

Val Ala Glu Trp Asn Pro Arg Glu Met Arg Met Ser Tyr Ser Glu Thr
                645                 650                 655

Thr Phe Lys Ser Trp Glu
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<213> Gallus gallus

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<212> DNA
<213> Gallus gallus

<220>
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<222> (174)..(1043)

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gaaggcctcg tttgttttta agtgtgcggg cgctgtcaca gctccgggga acg atg 176
Met
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tct gca aat gcg gaa gcc cag tgt gga agt atc tca gag gat aat acc 224
Ser Ala Asn Ala Glu Ala Gln Cys Gly Ser Ile Ser Glu Asp Asn Thr
5 10 15

cat tcg tca aca acc tgc caa gga tat gtt tta cca gaa gga aaa atc 272
His Ser Ser Thr Thr Cys Gln Gly Tyr Val Leu Pro Glu Gly Lys Ile
20 25 30

atg cca aat aca gtc ttt gtt ggt gga att gat ata agg atg aat gaa 320
Met Pro Asn Thr Val Phe Val Gly Gly Ile Asp Ile Arg Met Asn Glu
35 40 45

gca gaa att cgg agt tac ttt gaa caa tat ggt act gtg aag gag gtg 368
Ala Glu Ile Arg Ser Tyr Phe Glu Gln Tyr Gly Thr Val Lys Glu Val
50 55 60 65

aaa ata atc act gac aga act ggt gtt tcc aaa ggg tat gga ttt gtt 416
Lys Ile Ile Thr Asp Arg Thr Gly Val Ser Lys Gly Tyr Gly Phe Val
70 75 80

tca ttc ctg gac aat gtg gat gtt caa aag ata gta gaa tca cag atc 464
Ser Phe Leu Asp Asn Val Asp Val Gln Lys Ile Val Glu Ser Gln Ile
85